

side of head densely punctate, hairy. Pronotum extremely rough, wrinkled, with deep impressions; surface smooth, very finely, very sparsely punctate on disk; setae as on vertex. Elytral surface smooth, impunctate, glabrous; reticulations strongly marked; cells irregular in form and size. Under surface of thorax densely pubescent, of abdomen more sparsely pubescent. Tarsal pads dense, very narrow.

Male: Antennae as in figure 4, reaching a little beyond middle of pronotum; segments except I very densely pubescent, dull. All tarsal pads pale. Sixth abdominal sternum as in figure 11. Genitalia as in figure 12.

Female: Antennae as in male but slightly shorter. Pad of first and second segments of middle tarsi and first segment of hind tarsi black. Sixth abdominal sternum truncate.

Type Locality: Of *philippi*, North Chil . Of *frontalis*, Chil .

Geographic Distribution: Atacama and Coquimbo provinces, northern Chil .

Seasonal Distribution: November 4 to January.

Records: CHIL : *Atacama*: Chanaral, December, January, 4.
Coquimbo: Condoriaco, November, 6.

Remarks: The above description is based on specimens in the collection of the California Academy of Sciences (E. P. Reed collection). The present location of the types of *philippi* and *frontalis* is unknown to me.

THE APION SUBGENUS PERAPION WAGNER IN NORTH AMERICA (CURCULIONIDAE)

By D. G. KISSINGER ¹

The problem of determining the relationship of the species of *Apion* occurring in the New World to the various subgenera of *Apion* founded on European species is no small task. Recently I have found that the *Apion punctinasum* group of Kissinger (1959) can be assigned to the subgenus *Perapion* Wagner.

The general appearance of the two groups is very similar: body generally elongate; prothorax more or less subcylindrical with the apex not much smaller than the base; and the beak rather short, stout, and subcylindrical and hardly expanded at the insertion of the antennae. The fundamental character these two groups have in common is the fact that the middle coxae are not separated by the mesosternum. This condition is known to occur also in four groups of New World *Apion* (Kissinger, 1959), the Palearctic subgenus *Phrissotrichium* Schilsky, and the Ethiopian subgenus *Aplemonus* Schoenherr.

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In addition to structural similarities the *punctinasum* group has host plants similar to those of the members of *Perapion*. Hustache (1931) lists 13 members of the subgenus from the Franco-Rhenane region, of these seven species are believed to develop in plants of the family Polygonaceae. Both *A. punctinasum* and *A. pulchrum* are associated with plants of this family. The only other *Apion* known to me that develop in Polygonaceae are members of the Palearctic subgenus *Erythrapion* Schilsky.

The three Nearctic members of the subgenus probably differ from the Palearctic and Ethiopian members (I have seen *affine*, Kby., *antiquum* Gyll., *brevirostre* Hbst., *chevrolati* Gyll., *curtiostre* Gem., *hydrolapathi* Marsh., *ilvense* Wagn., *limonii* Kby., *marchicum* Hbst., *sedi* Germ., *simum* Germ., and *violaceum* Kby.) in that the vestiture is denser in a narrow postscutellar spot on the elytra; the old World species have uniform pubescence on the elytra.

Hustache (1931) included two species in *Perapion*, *limonii* Kby. and *malvae* F., that were not included by Wagner (1910). Wagner placed *limonii* in *Aplemonus*. *A. limonii* has the middle coxae not separated by the mesosternum; it can not be *Aplemonus*, however, because the front tibia is not strongly curved and not armed with teeth within; it seems to be a *Perapion*. *A. malvae* F., on the other hand, has the middle coxae separated by the mesosternum, thus it cannot be placed in *Perapion*; Balfour-Browne (1944) placed it in *Pseudapion* Schilsky.

The subgenus *Perapion* is quite large; including the species treated in this paper Wagner (1910) listed 32 species from the Holarctic and Ethiopian regions.

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KEY TO THE NORTH AMERICAN SPECIES OF THE SUBGENUS PERAPION WAGNER

1. Elytra with nearly uniform, conspicuous, moderately coarse pubescence; scales behind scutellum slightly denser and hardly coarser than those on remainder of elytra.....**wickhami**, sp. n.
- Elytra with a conspicuous postscutellar spot of pubescence much coarser than the sparse, very fine, inconspicuous scales on remainder of elytra..... 2
2. Beak distinctly shorter than prothorax in both sexes.....**pulchrum** Blatchley
- Beak equal to or longer than prothorax.....**punctinasum** Smith

Apion (Perapion) wickhami, NEW SPECIES

(FIGURE 1)

Described from a single specimen of unknown sex (probably a female) labeled Laramie, Wyoming, March 18, 1894, Wickham collection, in U. S. National Museum.

Length: 2.43 mm.; width: 1.00 mm. Elongate, moderately robust; black. Pubescence white, conspicuous, dense but not entirely concealing integument, uniform except for short sutural stripe immediately behind scutellum where it is slightly denser. Beak as long as prothorax, slightly curved, subcylindrical, a trifle prominent over antennal insertion when viewed from above; dull, punctured and pubescent to near tip, tip glabrous and shining. Antennae inserted at basal third at distance from eye slightly greater (as 3.0: 2.5) than width of frons; segments 1 and 2 each equal to next two, club 0.18 by 0.06 mm., segment 7 rather closely applied to club. Eyes slightly prominent, frons equal in width to dorsal tip of beak, punctured irregularly; in lateral view eye about as long as high, 0.18 by 0.18 mm., rounded in outline except in posterior ventral quadrant where it is obliquely flattened; in lateral view dorsal outline of head with frons appearing depressed and vertex of head appears higher and slightly prominent. Prothorax subcylindrical, as long as wide at base, middle a trifle narrower than base, width of apex to base as 7: 8; without basal lateral expansion, sides nearly parallel in basal two-thirds then slightly narrowed to apex which is not constricted; in profile dorsal surface slightly arcuate; on dorsal surface punctation fine and deep, about 0.02 mm. in diameter, interspaces much narrower than diameter of punctures, from one-third to one-half as wide, slightly wider near basal fovea; basal fovea a short deep elongate puncture beginning at distance from base equal to about twice length of scutellum. Elytra at humeri one-third wider than prothorax at base, three times as long as prothorax, length to width as 13.5: 8; intervals slightly convex, about twice as wide as striae, with three or four rather irregular rows of minute punctures bearing conspicuous, fine elongate scales from 0.04 to 0.06 mm. long, in same row tip of scale generally reaches to or slightly beyond base of next scale; striae deep, moderately broad, with one row of scales which has a tendency to be slightly coarser than scales on adjacent intervals; scutellum linear, about 0.06 mm. long by 0.04 mm. wide. Front femur robust, about 2.7 times as long as wide. Claws simple.

***Apion* (*Perapion*) *pulchrum* BLATCHLEY**

Apion pulchrum Blatchley, 1916, Rhynch. N. E. America, p. 74.

Specimens of this species have been seen with the following data: Illinois: Olive Branch, October 4, 1909, Gerhard Co. (CNHM). Indiana: Kosciusko Co., June 6, type locality. Louisiana: Mansura, July 11, A. A. Rosenfeld (USNM). Maryland: Snow Hill, August 16, 1942, W. H. Anderson, larvae in stems of *Polygonum punctatum* (USNM). North Carolina: Holly Shelter, April 25, 1953, H. and A. Howden (Howden). Ohio: Westerville, June 24, July 3 and 23, August 21, September 7, E. L. Sleeper, *Persicaria* [*Polygonum*] *hydropiper* L. [compared with type by Sleeper] (ELS).

***Apion* (*Perapion*) *punctinasum* SMITH**

Apion punctinasum Smith, 1884, Trans. American Ent. Soc., vol. 11, p. 46.

I designate the lectotype of this species as the specimen labeled "Wy[oming]," U S N M no. 1281; a lectoparatype in Museum of Comparative Zoology, no. 360, with same data.

Specimens of this species have been seen with the following data: UNITED STATES: California: exact locality unknown (TLCC); Grass Lake, Siskiyou Co., June 11, 1941, A. T. McClay; Lake Co. (TLCC). Illinois: Braidwood, May 10, 1949, N. W. Sanderson (INHS). Massachusetts: Nantucket, June 7, 1927, C. A. Frost (CAF and USNM). Montana: Onah, July 9, 1916, J. B. Wallis (UK). Nebraska: 3.3. miles east of Potter, Cheyenne Co., June 22, 1953, B. and B. Valentine (DGK). Nevada: Elko, Wickham collection. New Jersey: Elizabeth, Wickham collection (USNM). Oregon: Klamath Falls, June 1 to 7, July 18, Joe Schuh, one pair mating on *Rumex* sp. (Schuh); Upper Klamath Marsh, June 21, 1938, L. P. Rockwood (Schuh); Lake of the Woods, Klamath Co., June 15, 1941, A. T. McClay (UC at Davis). Wyoming: exact locality unknown, type locality (USNM). CANADA: Alberta: Edmonton, June 18, 1928, F. S. Carr (UC at Davis). British Columbia: Oliver, April 30, 1923, C. B. Garrett (CNC); Vernon, July 10, 1922, H. B. Leech (CNC). Manitoba: Aweme, N. Criddle, *Rumex persicarioides* (CNC); Riding Mountain Park, June 9, 1937, W. J. Brown (CNC). Ontario: Britannia, June 2, 1948, S. D. Hicks (CNC); Delhi, June 3, 1931, W. J. Brown (CNC); Mer Bleue, May 5, 1931, W. J. Brown (CNC); Prince Edward Co., June 9, July 13, August 21, J. F. Brimley (DGK). Saskatchewan: Attons Lake, Cut Knife, June 3, 1940, A. R. Brooks (CNC); Ogema, June 16, 1916, N. Criddle (CNC).

A. punctinasum shows some variation in the form of the beak of the male and in the sculpture of the elytral intervals. The beak of some males appears stouter in side view because the dorsal outline is arched, this is apparent because the beak attenuates somewhat apically instead of being nearly subcylindrical throughout. The intervals may be polished and smooth or they may have definite transverse wrinkles. No geographical pattern could be found for these variations as specimens from eastern and western localities exhibited the differences.

The two species, *pulchrum* and *punctinasum*, are very similar in many respects. Besides the difference in the length of the beak summarized in the key they differ somewhat in color and convexity of the elytral intervals. The elytra of *pulchrum* tend to have a definite brassy luster more yellow than the purplish luster of *punctinasum*, and the intervals of *pulchrum* tend to be more convex than those of *punctinasum* and have definite transverse wrinkles. Both *pulchrum* and *punctinasum* differ greatly from *wickhami* because of the uniform pubescence on the elytra of the latter.

ADDENDUM

An interesting specimen has been seen from the entomological collection of the "Defensa Agrícola," México, D. F. It is labeled only "Chiapis." Judging from available material it is *Apion* (*Erythrapion*) *miniatum*

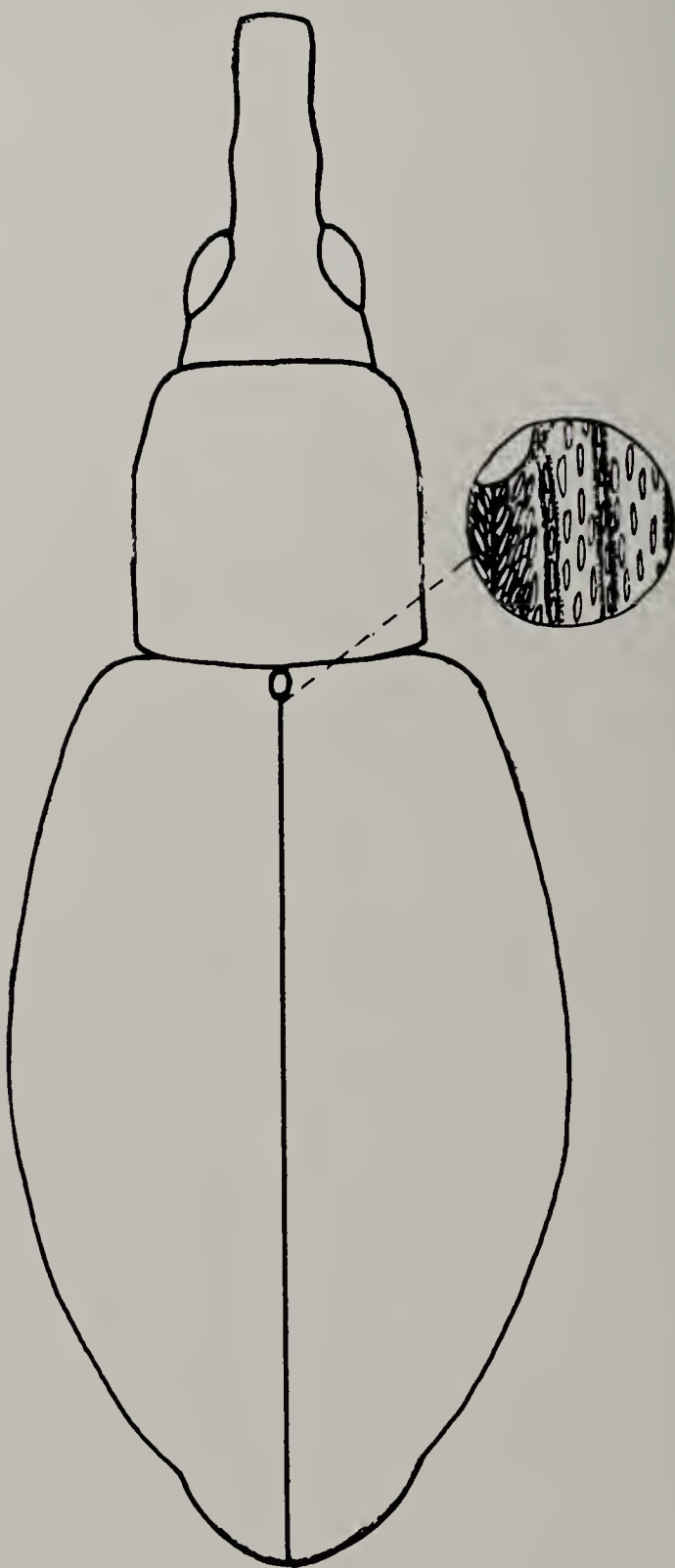


FIGURE 1. Entire dorsal view of *Apion* (*Perapion*) *wickhami* Kissinger; inset shows detail of scales on intervals 1-3 immediately behind scutellum.

Germar, a common European species. I believe the specimen is incorrectly labeled, perhaps accidentally transported, or by some other mishap incorrectly associated with Mexico. I'll stand corrected if and when further unquestionable material is found in Mexico.

The species differs greatly from the New World *Apion* known to me by its red color and very long, subcylindrical head; the eye is situated from the front margin of the prothorax at a distance greater than 1.5 times its diameter. Hustache (1931) gives the size range of this species as 3.3 to 4.5 mm. Members of this subgenus are associated with *Rumex*.

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CANADIAN SPECIMENS OF GNORIMELLA MACULOSA (KNOCH) (SCARABAEIDAE) WITH NOTES ON VARIATION

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In The Canadian Field-Naturalist (1957) I published a note on the distribution and occurrence of the scarabaeid *Gnorimella maculosa* (Knoch), generally considered a rare beetle throughout its range in eastern North America. I suggested that this species could be collected rather frequently near Wakefield, Quebec, and on June 8, 1959, I confirmed this prediction. Three females and six males were taken flying around the flowers of *Cornus rugosa* (the same clump of dogwood as in 1956) which occurred on a steep, rocky hillside. Fifteen or more specimens were seen but only nine were taken since they were quite active, owing to the 90° temperature.

Variation in the Wakefield material seems worthy of comment. Published descriptions of the pattern of this beetle refer to a form having black spots on light brown elytra. This seems to be normal for specimens taken

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